

## DAILY FIELD ACTIVITY REPORT

**PROJECT NAME:** Pre-Remedial Design Investigation and Baseline Sampling, Portland Harbor Superfund Site

<b>DATE:</b> July 20, 2018	<b>WEATHER:</b> Mostly Sunny, High ~75 to 80 degrees F
<b>Personnel and Visitors Onsite:</b> Research vessel Methow – <u>CDM Smith</u> : Jason Silvertooth; <u>AECOM</u> : Mark Tauscher; <u>Geosyntec</u> : Joey Hickey; <u>Gravity Marine</u> : Renee Trudeau, Peter Jenkins  Core Processing – <u>CDM Smith</u> : Mary Lou Fox; <u>AECOM</u> : Michaela McCoog, Robert Schomp; <u>Geosyntec</u> : Erin Dunbar, Anne Fitzpatrick, Alison Clemens, Lucas Evans	
<b>Planned Activity:</b> <ul style="list-style-type: none"><li>Collect surface sediment samples at stratified random sample locations.</li><li>Process cores collected on 7/18 and 7/19 at the sample processing warehouse</li></ul>	
<b>Activity Completed:</b> <p>A tailgate safety meeting was led by AECOM. Topics discussed during the safety meeting included a review of safety equipment and boat operations on the Methow, hearing protection, slips, trips, and falls, pinch points, exclusions zones, and PPE in work areas.</p> <p>Jason Silvertooth performed oversight of surface sediment sampling at stratified random and SMA sample locations from 9:55 to 17:40 on board the Methow. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:</p> <ul style="list-style-type: none"><li>GPS position checks were performed at the beginning and end of the day at the PH-2 control point at the Fred Devine property. GPS coordinates at the beginning of the day were within 1.62 meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP. In the afternoon, however, the GPS coordinates were 4.12 m away from the surveyed coordinates at the PH-2 control point.</li><li>Four composite surface sediment samples were collected from stratified random sample locations. Samples collected and a brief description of each sample are provided below. Between sampling locations all sampling equipment was decontaminated using Alconox and deionized/distilled water.</li></ul> <p>Mary Lou Fox performed oversight of core processing at the AECOM sample processing facility from 08:30 to 16:45. Activities completed by the AECOM/Geosyntec team at the sample processing facility are as follows:</p> <ul style="list-style-type: none"><li>AECOM led the tailgate meeting discussing safety equipment in the core processing facility including first aid kits, an AED, eyewash station, and fume hood, work zones layout were discussed; and also the activities for the core processing.</li><li>A total of 10 sediment samples were collected from 3 boring as summarized below</li><li>The photoionization detector (PID) was calibrated with 100 ppm isobutylene.</li></ul>	
<b>Status of Schedule &amp; Priority Work:</b> <ul style="list-style-type: none"><li>Surface sediment will be continuing tomorrow on the Methow and core sampling will resume on Sunday using the same vessel.</li></ul>	
<b>Issues/Concerns/Resolutions (include work performed that was not planned or anticipated):</b> <p>The GPS position check coordinates noted by oversight staff were determined to be 4.12 m away from the PH-2 benchmark coordinates. It is not clear if this was due to oversight transcribing the coordinates to notes or poor GPS accuracy on the Methow. The position check on the following morning (7/21) indicated acceptable GPS accuracy within the 1-2 m accuracy requirement of the FSP. PreRD Group documentation will be reviewed at the data portal to determine if the GPS was reading correctly on 7/20.</p> <p>At stratified random sample location SG-B258, the primate, alternate 1, and alternate 2 locations were all inaccessible due to a ship docked at the Vigor facility, but a portion of the polygon was accessible for sampling. Based on EPA concurrence provided in the June 15 tech call, the Pre-RD group collected a sample at the accessible portion of the polygon and the labeled the sample as an "archive" sample and filled out an anomaly form.</p> <p>TPH-like odor was noted at bottom of the first attempted core from SC-SO-36, which was the core that was retained out of three cores not meeting the acceptance criteria (&lt;80% recovery). The other two attempted cores either did not contain evidence of contamination or hit refusal prior to the first attempted core depth.</p>	

**Samples Collected, Measurements Made, Photographs: (List Locations, Matrix & Sample type):**

On the Methow, surface sediment samples were collected at the following sampling locations:

- PDI-SG-B172 – 3-point composite, RM 6 W, within 25 ft radius, silt
- PDI-SG-B174– 3-point composite, RM 6 W, within 25 ft radius, silt
- PDI-SG-B266 – 3-point composite, RM 8.5 E, within 25 ft radius, silty sand
- PDI-SG-B258 – 3-point composite, RM 8.5 E, “archive” location (see above), silt with trace sand, duplicate collected

Core processing of the cores collected on 7/18 and 7/19 was completed, including photographic document of the cores, lithologic logging, screening with a PID, geotechnical field tests, and sediment sampling was conducted at the sample processing facility and samples were collected from the following depth intervals for laboratory analysis for borings SC-SO-34, SC-SO-22, and SC-SO-36 cores. All depth measurements are based on recovered core length (not penetrated depth):

**SC-SO-34**

- 0-1.8 FT: dark gray fine sand, slight hydrocarbon odor, PID reading = 0 ppm
- 1.8-4 FT: dark gray clayey silt, PID reading = 0 ppm,
- 4-5.2 FT: dark gray clayey silt, no hydrocarbon odor, PID Reading = 0

**SC-SO-22**

- 0-2 FT: dark gray clayey silt, PID reading = 0 ppm
- 2-4 FT: dark gray clayey silt, PID reading = 0 ppm,
- 4-5 FT: dark gray clayey silt, PID Reading = 0 ppm
- 5-6 FT: dark gray clayey silt, PID Reading = 0 ppm (Sample is being archived.)

**SC-SO-36**

- 0-1.4 FT: very soft silt with interbedded sand, PID reading = 0 ppm
- 1.4-3.4 FT: very soft dark gray clayey silt, PID reading = 0 ppm,
- At 3 FT, asphalt-like aggregate was observed
- 3.4-5.2 sand with wood fragments, trace TPH odor at 3.4 FT becoming moderate at 4.2 FT PID screening of core was 0 ppm, PID Headspace PID Reading in sealed-bag at 4.6 FT = 34; TPH odor at bottom of core; no sheen was observed

On the core logging forms, depths based on recovered core length and “in-situ depths” (actual depths estimated by the observed percent recovery or percent compaction) are both shown.

Note: Sediment descriptions are simplified and AECOM/Geosyntec provided more detailed sediment descriptions in their sampling notes.

Photographs of work were taken throughout the day on board the Methow and provided to EPA via email. Additional photos were taken and archived with a description included in the photolog Excel spreadsheet, which are maintained electronically in the ProjectWise project folder.

**Borings Completed (Include total footage drilled for each boring):**

None (all cores logged today were collected on 7/18 and 7/19)

**Wastes Generated and How Handled:**

- Excess sediment and debris in the power grab sampler and in the sampling bowls was rinsed back into the river per the FSP. No significant sheen was observed.
- Disposable gloves, paper towels, and other general trash was containerized in a trash bag and removed daily for disposal to a municipal waste management dumpster.

**Health and Safety Issues, Equipment Needs, Staffing:**

None.

**Signature:**      Jason Silvertooth; Mary Lou Fox  
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**DATE**      July 20 2018  
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# Portland Harbor ONI Sediment Core Processing Log

Location #: **SD36**

Collection Date: **7/20/18**

## Collection

Processing Date:	7/20/18
Core Station ID:	SD36
Analytical Suite:	four focused COCs
Core Tube Type:	lexan w/ liner 4" ID

Core Processing Personnel:	E Dunbar, A Fitzpatrick M. McGary
Core Tube Length:	lab = 5.2 lab = 5.0 boat = 5.0
Core % Recovery:	72% <del>72.5%</del> boat = 5.0 = 5/6.9 ft

Sediment Description									
Recovered Length (ft)	Compaction (%)	PID Reading & Geotech	Size % - G	Size % - S	Size % - F	Description (moisture, density, color, grain size, sheen/odor, biota/debris)	Subsample #	In situ Actual Depth (ft)	Sample Depth (ft)
0.5					100 (silt)	Wet, very soft, very dark grayish brown, slightly clayey silt (cl); (2.5Y 3/2) compressible	0-1.4 1550	0-1.9	1
1.5		TV 100.2 0.0/P.P.O. C1				Wet, very soft, slightly clayey silt (cl) interbedded sand (sp), trace silt 2.5Y 3/1 very dark gray (silt); black (sand); 3" sand lenses	1.4-3.4 1555	1.9-4.7	2
2.5						Trace, ang-subang gravel (2") @ 1.8-2.4'; scattered 2.5' aggregate asphalt-like; lumbered wood (1.5x3'); 1" brick frag.	1.9-4.7 1555	1.9-4.7	3
3.5		TV 400.2 0.0/P.P.O. C3			100 (silt)	Woody 3.4-5.2; trace TH-like odor sand lens, black; loose, black large thin frag. 2" long. ~10% water no sheen	3.4-5.2 1600	4.7-7.2	4
4.5		TV 600.2 0.0/P.P.O. C5			100 (silt)	Silt (clayey); SAA; moderate hydrocarbon-like odor; no green; light blue scattered black flakes; flakes from 4 to 5.0 increase frequency w/ depth; disintegrates w/ pressure (finger/thumb)	4.7-6.9	4.7-6.9	5
5.0						Catcher full; same as a bore (silt)			
						bottom of core @ 5.0			

\*Use line weights indicated in logging key to illustrate major/minor contacts  
percent compaction = recovery depth / drive depth